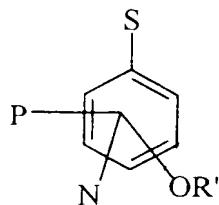


Claims

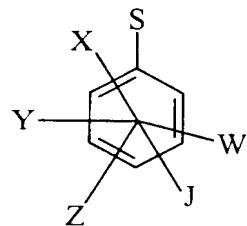
1. A liquid cleaning composition comprising an oxidising agent and a radical scavenger which is selected from the group consisting of:

(i)



Wherein S is either $-COO^-M^+$ or $-SO_3^-M^+$; P and N are substituents of the benzene ring being either $-OR'$, $-H$, $-COO^-M^+$, $-Cl$, $-Br$, $-SO_3^-M^+$, $-NO_2$, $-OCH_3$, or a C₁ to C₁₀ primary and secondary alkyl groups; R' is C₂-20 linear or branched alkyl chain; M is either H or a metal.

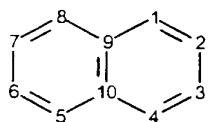
(ii)



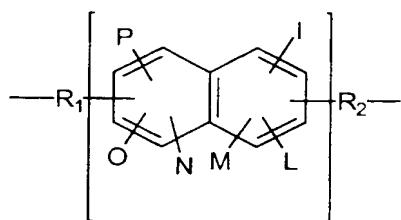
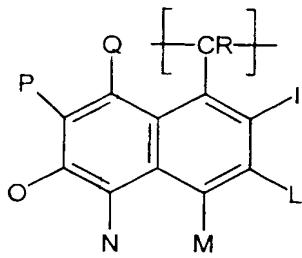
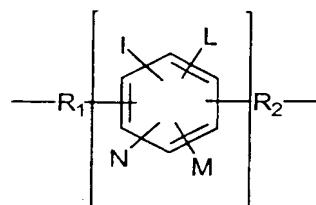
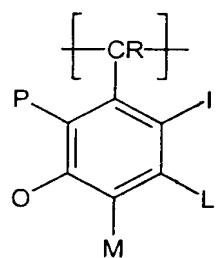
wherein S is either $-COO^-M^+$ or $-SO_3^-M^+$; X, Y, Z, W are substituents of the benzene ring being either $-COO^-M^+$, $-Cl$, $-Br$, $-SO_3^-M^+$, $-NO_2$, $-OR'$ (with R'=linear or branched alkyl chain C₁-C₂₀), or a C₁ - C₁₀ primary and secondary alkyl groups; J is $-H$, $-COO^-M^+$, $-Cl$, $-Br$, $-SO_3^-M^+$, $-NO_2$, $-OR'$ (with R'=linear or branched alkyl chain C₁-C₂₀), or a C₁ to C₁₀ primary and secondary alkyl group and M is either H or a metal.

(iii) napthalene derivatives wherein the carbon atoms in position 1 to 8 (see below figure for carbon numbering) are substituted with S, A, B, C, D, E, F, G groups and wherein:

S is either $-\text{COO}^-\text{M}^+$ or $-\text{SO}_3^-\text{M}^+$; A, B, C, D are $-\text{COO}^-\text{M}^+$, $-\text{Cl}$, $-\text{Br}$, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R' =linear or branched alkyl chain C1-C20), or a C₁ to C₁₀ primary and secondary alkyl groups; E, F and G are either $-\text{H}$, $-\text{COO}^-\text{M}^+$, $-\text{Cl}$, $-\text{Br}$, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R' =linear or branched alkyl chain C1-C20), or a C₁ to C₁₀ primary and secondary alkyl group and M is H or a metal.



(iv) homo or copolymers containing either as a part of the repeating unit(s) or as a side chain substituent one or more residues of the type:

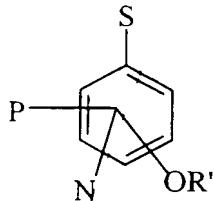


wherein I, L, M, N, O, P, Q are either H, $-\text{COO}^-\text{M}^+$, $-\text{SO}_3^-\text{M}^+$, $-\text{Cl}$, $-\text{Br}$, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R' =linear or branched alkyl chain C1-C20) or a C₁ - C₁₀ primary and secondary alkyl groups; R is either H, $-\text{COO}^-\text{M}^+$, $-\text{SO}_3^-\text{M}^+$, $-\text{Cl}$, $-\text{Br}$, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R' =linear or branched alkyl chain C1-C20), $-\text{OH}$ or a C₁ - C₁₀ primary and secondary alkyl groups; R₁ and R₂ are either $-\text{CH}_2-$, $-\text{CHR}-$, $-\text{CRR}-$, $-\text{CO}-$, $-\text{CO-O-}$, $-\text{CO-NH-}$, $-\text{O-}$, $-\text{CH}_2\text{CH}_2\text{O-}$, $-\text{N}^+(\text{R})_2-$, $-(\text{N}-\text{O})-$ and M is either H or a metal.

(v) mixtures thereof.

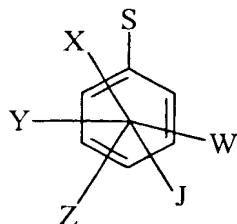
2. A composition according to the preceding claim wherein the radical scavenger is selected from the group consisting of 2,3,4,5 tetramethoxy benzoic acid; 2,3,4,5,6 pentamethoxy benzoic acid; polystyrene; polystyrene sulfonate; styrene:maleic acid copolymer; styrene:acrylic acid copolymer; styrene:ethylene glycole graft polymers; poly(ethyleneglycol) ditoluene sulfonate; poly hydroxy benzoic acid; poly hydroxy styrene; poly methyl styrene; polystyrene divinyl benzene; poly vinyl phenol; and mixtures thereof.
3. A composition according to any preceding claim wherein the oxidising agent is a hypohalite, preferably hypochlorite bleach.
4. A composition according to any preceding claim additionally comprising a brightener.
5. A composition according to claim 4 wherein the brightener is Tinopal PLC and/or Optiblanc BRB.
6. A composition according to any preceding claim additionally comprising a surfactant selected from the group consisting of anionic, nonionic, cationic, amphoteric, zwitterionic surfactants and mixtures thereof.
7. A composition according to claim 6 comprising an anionic surfactant selected from alkyl sulphate, alkyl ether sulphate and mixtures thereof.
8. A composition according to any preceding claim in thickened liquid, preferably aqueous form.
9. The use of a compound having the formula

(i)



Wherein S is either $-\text{COO}^-\text{M}^+$ or $-\text{SO}_3^-\text{M}^+$; P and N are are substituents of the benzene ring being either $-\text{OR}'$, $-\text{H}$, $-\text{COO}^-\text{M}^+$, $-\text{Cl}$, $-\text{Br}$, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OCH}_3$, or a C₁ to C₁₀ primary and secondary alkyl groups; R' is C2-20 linear or branched alkyl chain; M is either H or a metal.

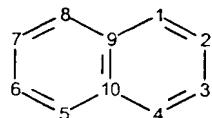
(ii)



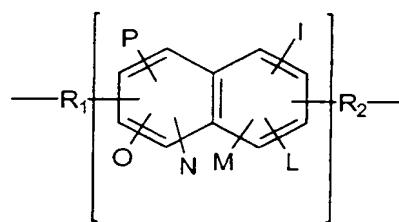
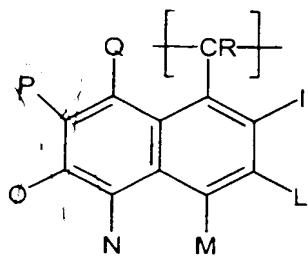
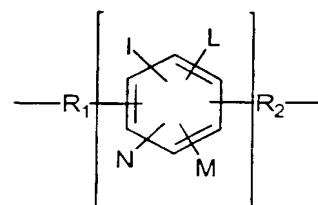
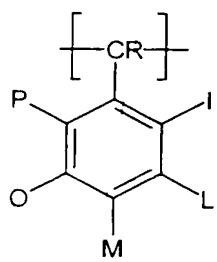
wherein S is either $-\text{COO}^-\text{M}^+$ or $-\text{SO}_3^-\text{M}^+$; X, Y, Z, W are are substituents of the benzene ring being either $-\text{COO}^-\text{M}^+$, $-\text{Cl}$, $-\text{Br}$, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R'=linear or branched alkyl chain C1-C20), or a C₁ - C₁₀ primary and secondary alkyl groups; J is $-\text{H}$, $-\text{COO}^-\text{M}^+$, $-\text{Cl}$, $-\text{Br}$, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R'=linear or branched alkyl chain C1-C20), or a C₁ to C₁₀ primary and secondary alkyl group and M is either H or a metal.

(iii) naphtalene derivatives wherein the carbon atoms in position 1 to 8 (see below figure for carbon numbering) are substituted with S, A, B, C, D, E, F, G groups and wherein:

S is either $-\text{COO}^-\text{M}^+$ or $-\text{SO}_3^-\text{M}^+$; A, B, C, D are $-\text{COO}^-\text{M}^+$, $-\text{Cl}$, $-\text{Br}$, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R'=linear or branched alkyl chain C1-C20), or a C₁ to C₁₀ primary and secondary alkyl groups; E, F and G are either $-\text{H}$, $-\text{COO}^-\text{M}^+$, $-\text{Cl}$, $-\text{Br}$, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R'=linear or branched alkyl chain C1-C20), or a C₁ to C₁₀ primary and secondary alkyl group and M is H or a metal.



(iv) homo or copolymers containing either as a part of the repeating unit(s) or as a side chain substituent one or more residues of the type:



wherein I, L, M, N, O, P, Q are either H, $-\text{COO}^-\text{M}^+$, $-\text{SO}_3^-\text{M}^+$, -Cl, -Br, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R' =linear or branched alkyl chain C1-C20) or a C₁ - C₁₀ primary and secondary alkyl groups; R is either H, $-\text{COO}^-\text{M}^+$, $-\text{SO}_3^-\text{M}^+$, -Cl, -Br, $-\text{SO}_3^-\text{M}^+$, $-\text{NO}_2$, $-\text{OR}'$ (with R' =linear or branched alkyl chain C1-C20), -OH or a C₁ - C₁₀ primary and secondary alkyl groups; R₁ and R₂ are either $-\text{CH}_2-$, $-\text{CHR}-$, $-\text{CRR}-$, $-\text{CO}-$, $-\text{CO-O-}$, $-\text{CO-NH-}$, $-\text{O-}$, $-\text{CH}_2\text{CH}_2\text{O-}$, $-\text{N}^+(\text{R})_2-$, $-(\text{N}-\text{O})-$ and M is either H or a metal.

(v) mixtures thereof.

as a radical scavenger.